

TEI BIOSCIENCES INC.  
February 8, 2002

TissueMend™ Soft Tissue Repair Matrix  
Abbreviated 510(k) Premarket Notification

APR 03 2002

## 510(k) Summary

This 510(k) summary for TissueMend™ Soft Tissue Repair Matrix is being submitted in accordance with the requirements of 21 CFR 807.92.

### Submitted by

TEI Biosciences Inc.  
7 Elkins Street  
Boston, MA 02127  
(617) 268-1616  
(617) 268-3282 (fax)

### Contact Person

Kenneth James, Ph.D.  
Director of Product Development and Applied Research

### Date Prepared

February 8, 2002

### Device Information

Proprietary name: TissueMend™ Soft Tissue Repair Matrix  
Classification name: mesh, surgical, polymeric  
Device classification: Class II (21CFR878.3300)

### Device Description

TissueMend™ Soft Tissue Repair Matrix is a remodelable collagen matrix derived from bovine skin to be used to reinforce soft tissues where weakness exists. The device is supplied sterile and is provided in sheet form in a variety of sizes to be trimmed and sutured by the surgeon to meet the individual patient's needs.

### Intended Use

TissueMend™ is intended for use as a soft tissue patch to reinforce soft tissues where weakness exists and for the surgical repair of damaged or ruptured soft-tissue membranes. Specifically the device is indicated for use in the surgical repair of hernias such as inguinal, femoral, umbilical, and incisional hernias; thoracic wall defects; urethral procedures and vaginal prolapse; muscle flap reinforcement; reconstruction of the pelvic floor and procedures such as sacrocolposuspension and urethral sling.

### Legally Marketed Devices to which Equivalence is Being Claimed

TissueMend™ is substantially equivalent in function and intended use to:

Predicate Devices	Manufacturer	510(k) Number
Permacol	Tissue Science Laboratories	K992556
Surgisis	Cook Biotech	K980431

### Summary of Technological Characteristics and Biocompatibility

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TissueMend™ is substantially equivalent to other surgical meshes with respect to its design as a thin, flexible, polymeric sheet which can be sutured to surrounding tissues to secure it in place. In addition, the device is fully resorbable over a period of months.

A rigorous biocompatibility assessment performed by an independent certified laboratory demonstrated the biocompatibility of TissueMend™. The tests performed included: cytotoxicity, sensitization, intracutaneous reactivity, acute systemic toxicity, genotoxicity, intramuscular toxicity, hemolysis, and pyrogenicity. The manufacturing methods for TissueMend™ were also tested by an independent laboratory to assure safe levels of viral inactivation.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Kenneth James, Ph.D.  
Director of Product Development  
and Applied Research  
TEI Biosciences Inc.  
7 Elkins Street  
Boston, Massachusetts 02127

APR 03 2002

Re: K020455

Trade/Device Name: TissueMend™ Soft Tissue Repair Matrix  
Regulation Number: 878.3300  
Regulation Name: Surgical Mesh  
Regulatory Class: II  
Product Code: FTM  
Dated: February 8, 2002  
Received: February 11, 2002

Dear Dr. James:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.


Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Kenneth James, Ph.D.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

  
for Celia M. Witten, Ph.D., M.D.  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

TEI BIOSCIENCES INC.  
February 8, 2002

K020455  
TissueMend™ Soft Tissue Repair Matrix  
Abbreviated 510(k) Premarket Notification

## 2. Indications for Use of the Device

510(k) Number (if known): K020455

Device Name: TissueMend™ Soft Tissue Repair Matrix

**Indications for Use:** TissueMend™ is intended for use as a soft tissue patch to reinforce soft tissue where weakness exists and for the surgical repair of damaged or ruptured soft tissue membranes. It is specifically indicated for the repair of abdominal, inguinal, diaphragmatic, femoral, scrotal, umbilical, and incisional hernias; colon, rectal, urethral, and vaginal prolapse; muscle flap reinforcement; reconstruction of the pelvic floor; and procedures such as sacrocolposuspension and urethral sling.

*(Please do not write below this line—continue on another page if needed)*

\* \* \* \* \*

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ☒ Or Over-the-Counter Use  
(Per 21 CFR 801.109) (Optional Format 1-2-96)

Miriam C Provost  
(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

510(k) Number K020455